

PATENT



ATTORNEY DOCKET NO. 114596-03-4000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 09/385,394
Applicant: John S. Yates, Jr. et al.
Title: COMPUTER FOR EXECUTING TWO DIFFERENT INSTRUCTION SETS
Filed: August 30, 1999
Art Unit: 2183
Examiner: Richard L. Ellis
Atty Docket: 114596-03-4000
Customer No. 38492

Confirmation No.: 9093

I certify that this correspondence, along with any documents referred to therein, is being deposited with the United States Postal Service on July 12, 2004 as First Class Mail in an envelope with sufficient postage addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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INFORMATION DISCLOSURE STATEMENT

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Commissioner for Patents
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Alexandria, VA 22313-1450

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In accordance with 37 C.F.R. §§1.56, 1.97 and 1.98, Applicant wishes to make of record the enclosed items, as listed on the accompanying Form PTO-1449. Applicant respectfully requests the Examiner to fully consider the items and independently ascertain their teaching before issuance of the next action, and to make them of record in the file. The Examiner is also requested to initial and return a copy of the enclosed Form PTO-1449 to evidence such consideration.

1. Applicant has listed publication dates on the attached Form PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated. Applicant reserves the right to establish the patentability of the claims over any information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered. This Information Disclosure Statement should not be construed as a representation that information more material to the examination of this application does not exist.

2. The references listed on the enclosed Form 1449 are references that have come to light in applications listed in the Information Disclosure Statement of December 2000. Applicant has not reviewed all of them in detail. Of those that have been reviewed, none of the references are believed to be any more pertinent than the references provided in earlier IDS' and Forms 1449. However, in an abundance of caution, Applicant requests that they be considered.

07/16/2004 EHAILE1 00000027-09385394-

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FORM PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 114596-03-4000	SERIAL NO. 09/385,394	
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				APPLICANT John S. Yates, Jr. et al.		
				FILING DATE August 30, 1999	GROUP ART UNIT 2183	
U.S. PATENT DOCUMENTS						
EXAMINER INTN	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,412,303	10/25/1983	Barnes	712	16	Oct. 25, 1983
	4,636,940	01/1987	Goodwin	717	128	Dec. 20, 1985
	4,750,112	06/07/1988	Jones	364	200	Feb. 10, 1984
	5,127,092	06/30/1992	Gupta	712	234	Jun. 15, 1989
	5,155,835	10/13/1992	Belsan	711	114	Nov. 19, 1990
	5,168,557	12/01/1992	Shibuya	712	207	Sep. 21, 1989
	5,241,664	08/31/1993	Ohba	711	121	Jan. 7, 1991
	5,241,638	08/31/1993	Mork	711	207	Aug. 12, 1995
	5,301,287	04/05/1994	Herrell	711	202	Feb. 16, 1993
	5,307,504	04/26/1994	Robinson	395	800	Mar. 7, 1991
	5,355,487		Keller			
	5,361,340	11/01/1994	Kelly	711	3	Mar. 9, 1993
	5,386,563	01/31/1995	Thomas	712	228	Oct. 13, 1992
	5,404,476	04/04/1995	Kadaira	711	207	Mar. 9, 1993
	5,432,795	07/11/1995	Robinson	371	19	May 15, 1991
	5,454,117	09/26/1995	Puziol	395	800	Aug. 25, 1993
	5,479,616	12/26/1995	Garibay	712	212	Apr. 3, 1992
	5,483,647	01/09/1996	Yu	713	100	Dec. 17, 1992
	5,487,156	01/23/1996	Popsescu	712	217	Dec. 5, 1990
	5,507,028	04/09/1996	Liu	395	375	Jan. 9, 1995
	5,515,518	06/07/1996	Stiles	395	375	Jul. 5, 1994
	5,542,109	07/30/1996	Blomgren	395	800	Aug. 31, 1994
	5,560,013	09/24/1996	Scalzi	717	138	Dec. 6, 1994
	5,574,929	11/12/1996	Pieterse	712	30	Jun. 30, 1994
	5,590,309	12/31/1996	Chencinski	395	472	Apr. 1, 1994
	5,608,886	03/04/1997	Blomgren	395	586	Aug. 31, 1994
	5,613,118	03/18/1997	Heisch	395	709	Jun. 20, 1994
	5,628,016	05/06/1997	Kukol	717	140	June 15, 1994
	5,636,366	06/03/1997	Robinson	395	490	Oct. 30, 1995
	5,657,474	08/12/1997	Taine	711	163	Nov. 20, 1995
	5,659,679	08/19/1997	Alpert	395	183.1	May 30, 1995
	5,659,782	08/19/1997	Senter	712	23	Sep. 16, 1994
EXAMINER			DATE CONSIDERED			RECEIVED JUL 2 0 2004

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FORM PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 114596-03-4000	SERIAL NO. 09/385,394
INFORMATION DISCLOSURE CITATION.				APPLICANT John S. Yates, Jr. et al.	
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Q1P E JCS	JUL 15 2004 PATENT & TRADEMARK OFFICE	5,664,159	09/02/1997	Richter	395	500	May 8, 1995
		5,673,407	09/30/1997	Poland	395	375	Mar. 8, 1994
		5,715,421	02/03/1998	Akiyama	711	213	Oct. 16, 1992
		5,721,927	02/24/1998	Baraz	395	705	Aug. 7, 1996
		5,732,238	03/24/1998	Sarkozy	711	135	Jun. 12, 1996
		5,742,780	04/21/1998	Caulk	395	382	Jan. 16, 1997
		5,754,878	05/19/1998	Asghar	395	800	Mar. 18, 1996
		5,768,500	6/16/1998	Agrawal	714	47	Jun. 20, 1994
		5,774,287	06/30/1998	Leonhardt	710	33	Dec. 9, 1994
		5,781,758	07/14/1998	Morley	395	500	Mar. 23, 1995
		5,781,792	07/14/1998	Asghar	395	800.35	Mar. 18, 1996
		5,784,640	07/21/1998	Asghar	395	800.35	Mar. 18, 1996
		5,790,824	08/04/1998	Asghar	395	385	Mar. 18, 1996
		5,794,068	08/11/1998	Asghar	395	800.35	Mar. 18, 1996
		5,796,939	08/18/1998	Berc	395	184.01	Mar. 10, 1997
		5,802,272	09/01/1998	Sites	395	183.21	Dec. 19, 1994
		5,802,337	09/01/1998	Fielden	712	216	Dec. 29, 1995
		5,802,373	09/01/1998	Yates	717	139	Jan. 29, 1996
		5,805,877	09/08/1998	Black	395	586	Sep. 23, 1996
		5,812,864	09/22/1998	McCoy	703	26	Dec. 6, 1995
		5,815,720	9/29/1998	Buzbee	717	158	Mar. 15, 1996
		5,819,064	10/06/1998	Razdan	703	27	Nov. 8, 1995
		5,838,962	11/17/1998	Larson	395	586	Apr. 9, 1997
		5,838,978	11/17/1998	Buzbee	395	705	Oct. 9, 1996
		5,847,955	12/08/1998	Mitchell	700	86	Jun. 23, 1997
		5,864,697	01/26/1999	Shiell	712	240	Jun. 27, 1997
		5,870,763	02/09/1999	Lomet	707	202	Mar. 10, 1997
		5,884,057	03/16/1999	Blomgren	395	375	May 8, 1995
		5,901,308	05/04/1999	Cohn	712	244	Mar. 18, 1996
		5,903,750	05/11/1999	Yeh	712	236	Nov. 20, 1996
		5,903,751	05/11/1999	Hoyt	395	585	Sep. 16, 1997

EXAMINER

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FORM PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 114596-03-4000	SERIAL NO. 09/385,394
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,905,855	05/18/1999	Klaiber	395	183.07	Feb. 28, 1997
	5,911,073	06/08/1999	Mattson	395	701	Dec. 23, 1997
	5,935,220	08/10/1999	Lumpkin	710	5	Aug. 9, 1996
	5,941,827	02/1996	Holtey	711	163	Jan. 14, 1994
	5,949,415	09/07/1999	Lin	345	335	Jun. 16, 1997
	5,958,061	09/28/1999	Kelly	714	1	Jul. 24, 1996
	5,960,198	Sep. 28, 1999	Roediger	717	130	Mar. 19, 1997
	5,968,162	10/19/1999	Yard	712	203	Apr. 2, 1996
	5,983,335	11/09/1999	Dwyer	712	23	Apr. 30, 1997
	5,999,736	12/07/1999	Gupta	717	158	May 9, 1997
	6,002,872	12/14/1999	Alexander	717	127	Mar. 31, 1998
	6,003,038	12/14/1999	Chen	707	103R	March 31, 1997
	6,005,551	12/21/1999	Osborne	345	161	Apr. 25, 1997
	6,006,033	12/21/1999	Heisch	717	158	Aug. 15, 1994
	6,006,277	12/21/1999	Talati	709	313	Jan. 26, 1996
	6,011,908	01/04/2000	Wing	395	182.17	Dec. 23, 1996
	6,014,735	01/11/2000	Chennupaty	712	210	Mar. 31, 1998
	6,021,484	02/01/2000	Park	712	41	Nov. 14, 1997
	6,021,489	02/01/2000	Poplingher	712	239	Jun. 30, 1997
	6,026,478	02/15/2000	Dowling	712	24	Dec. 23, 1997
	6,029,004	02/22/2000	Bortnikov	717	158	Mar. 17, 1997
	6,029,222	02/22/2000	Kamiya	710	262	Jan. 10, 1997
	6,032,247	02/29/2000	Asghar	712	35	Nov. 14, 1997
	6,035,393	03/07/2000	Glew	712	237	May 7, 1998
	6,044,220	03/28/2000	Breternitz	717	139	Feb. 25, 1997
	6,044,221	03/28/2000	Gupta	717	151	May 9, 1997
	6,047,363	04/2000	Lewchuk	711	213	Oct. 14, 1997
	6,052,771	4/18/2000	Heller	712	34	Jan. 20, 1998
	6,070,009	05/30/2000	Dean	717	130	Nov. 26, 1997
	6,076,144	6/13/2000	Peled	711	125	Dec. 1, 1997
	6,081,665	06/27/2000	Nilsen	717	116	Dec. 19, 1997

EXAMINER	DATE CONSIDERED	RECEIVED
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FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE**INFORMATION DISCLOSURE CITATION**

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ATTY. DOCKET NO.
114596-03-4000SERIAL NO.
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APPLICANT

John S. Yates, Jr. et al.

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,081,890	06/27/2000	Datta	713	1	Nov. 30, 1998
	Re. 36,766	07/04/2000	Krauskopf	711	203	Aug. 21, 1992
	6,092,188	07/18/2000	Corwin	712	239	Jul. 7, 1999
	6,115,809	09/05/2000	Mattson	712	239	Apr. 30, 1998
	6,119,204	9/12/2000	Chang	711	141	Jun. 30, 1998
	6,141,683	10/31/2000	Kraml	709	220	Jan. 30, 1998
	6,154,857	11/28/2000	Mann	714	30	Dec. 17, 1997
	6,157,970	12/05/2000	Gafken	710	27	Sep. 24, 1997
	6,175,957	01/16/2001	Ju	717	156	Dec. 9, 1997
	6,195,748	02/27/2001	Chrysos	712	227	Nov. 26, 1997
	6,202,205	03/13/2001	Saboff	717	9	Jul. 21, 1998
	6,205,545	03/20/2001	Shah	712	237	Apr. 30, 1998
	6,212,493	04/03/2001	Huggins	703	22	Dec. 1, 1998
	6,226,789	05/01/2001	Tye	717	138	Jan. 29, 1996
	6,233,678	05/15/2001	Bala	712	240	Nov. 5, 1998
	6,237,073	05/22/2001	Dean	711	202	Nov. 26, 1997
	6,237,074	05/22/2001	Phillips	711	213	May 26, 1995
	6,240,526	05/29/2001	Petivan	714	11	Oct. 27, 1999
	6,243,804	06/05/2001	Cheng	712	228	Jul. 22, 1998
	6,253,215	06/26/2001	Agesen	707	206	Aug. 17, 1998
	6,256,728	07/03/2001	Witt	712	236	Jul. 6, 1998
	6,260,191	07/10/2001	Santhanam	717	9	Apr. 7, 1997
	6,295,644	09/25/2001	Hsu	717	9	Aug. 17, 1999
	6,298,477	10/02/2001	Kessler	717	145	Oct. 30, 1998
	6,304,948	10/16/2001	Motoyama	711	162	Oct. 6, 1998
	6,308,318	10/23/2001	Krishnaswamy	717	139	Oct. 7, 1998
	6,308,321	10/23/2001	Schooler	717	132	Dec. 11, 1998
	6,336,135	01/01/2002	Niblett	709	215	Nov. 19, 1998
	6,351,784	02/26/2002	Neal	710	308	Dec. 28, 1998
	6,351,844	2/26/2002	Bala	717	128	Nov. 5, 1998
	6,353,924	03/05/2002	Ayers	717	128	Feb. 8, 1999

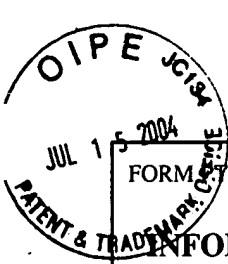
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,363,336	03/26/2002	Banning	703	26	Oct. 13, 1999
	6,374,367	03/26/2002	Dean	714	37	Nov. 26, 1997
	6,374,369	04/16/2002	O'Donnell	714	38	May 21, 1999
	6,381,628	04/30/2002	Hunt	709	201	Nov. 20, 1998
	6,381,735	04/30/2002	Hunt	717	158	Nov. 20, 1998
	6,397,379	05/28/2002	Yates	717	140	Oct. 28, 1999
	6,405,327	06/11/2002	Sipple	714	39	Aug. 19, 1998
	6,453,292	09/17/2002	Ramaswamy	704	235	Oct. 28, 1998
	6,463,582	10/08/2002	Lethin	717	158	Oct. 21, 1998
	6,470,442	10/22/2002	Arimilli	712	32	Jul. 30, 1999
	6,470,492	10/22/2002	Bala	717	128	May 14, 1999
	6,473,846	10/29/2002	Melchior	711	170	Jun. 16, 2000
	6,477,683	11/05/2002	Killian	716	1	Feb. 5, 1999
	6,480,862	11/12/2002	Gall	707	3	Apr. 23, 1999
	6,496,922	12/17/2002	Borrill	712	209	Oct. 31, 1994
	6,496,923	12/17/2002	Gruner	712	213	Dec. 17, 1999
	6,549,930	04/15/2003	Chrysos	709	104	Nov. 26, 1997
	6,557,094	04/29/2003	Pechanek	712	209	Sep. 28, 2001
	6,560,693	05/06/2003	Puzak	712	207	Dec. 10, 1999
	6,571,331	05/27/2003	Henry	712	239	Apr. 3, 2001
	6,591,414	07/08/2003	Hibi	717	151	Oct. 3, 1997
	6,631,518	10/07/2003	Bortnikov	717	158	Mar. 19, 1997
	6,678,820	01/2004	Kahle	712	239	Mar. 30, 2000

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO 99/08188 Kelly	02/18/1999	PCT/US	G06F	11/00		
	WO 99/08191 Kelly	02/18/1999	PCT/US	G06F	12/00		

EXAMINER

DATE CONSIDERED

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Papers, Etc.)

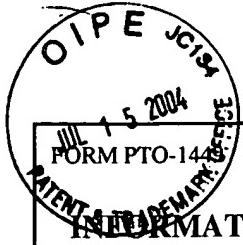
✓	Ammons, Ball and Larus: Exploiting Hardware Performance Counters with Flow and Context Sensitive Profiling, Proceedings of the ACM SIGPLAN 1997 Conference on Programming Language Design and Implementation, pp. 85-96 (1997)
✓	T.M. Conte, et al., "Accurate and practical profile-driven compilation using the profile buffer," Proceedings of the 29 th Annual International Symposium on Microarchitecture, Paris, France, pp. 36-45 (Dec. 1996)
✓	T.M. Conte, et al., "Hardware based profiling: An effective technique for profile-driven optimization," International Journal of Parallel Programming, vol. 24, no. 2 (Feb. 1996)
✓	T.M. Conte, et al., "Using branch handling hardware to support profile-driven optimization," Proceedings of the 27 th Annual International Symposium on Microarchitecture San Jose, CA (Dec. 1994)
✓	J.S. Cox et al., "Commercializing profile-driven optimization." Proceedings of the 28 th Hawaii International Conference on System Sciences, vol. 1 Maui, HI, pp. 221-228 (Jan. 1995)
✓	Dean, ProfileMe: Hardware Support for Instruction-Level Profiling on Out-of-Order Processors," IEEE 1997, pp. 292-302
✓	R.E. Hank, et al., Proceeding of the 28 th Annual International Symposium on Microarchitecture, pp. 158-168 (Dec. 1995)
✓	Reiner W. Hartenstein, Jürgen Becker: Performance Analysis in CoDe-X Partitioning for Structural Programmable Accelerators; Proc. of 5th Int'l Workshop on Hardware/Software Co-Design CODES/CASHE '97, Braunschweig, Germany, p. 141 (March 1997)
✓	Hollingsworth, Critical Path Profiling of Message Passing and Shared-Memory Programs, IEEE Transactions on Parallel and Distributed Systems vol. 9, no. 10, pp. 1029-1040 (October 1998)
✓	Intel Corporation, Intel Processor Family Developer's Manual (1997), pages 1-1 to 1-6, 2-1 to 2-20
✓	Intel Corporation, Intel Processor Family Developer's Manual (1997), vol. 3 (Architecture and Programming Manual), pages 3-1 to 3-3, 3-10 to 3-13, 12-1 to 12-27, 14-1 to 14-30
✓	Jones, Puzzling with Microcode, ACM SIGARCH Computer Architecture News, vol. 11, no. 5, pp. 8-12 (1983)
✓	Kavi et al., A Performability Model for Soft Real-Time Systems, IEEE Proceedings of the 27th Annual Hawaii International Conference on System Sciences, pp. 571-579 (1994)
✓	Kim and Tyson: Analyzing the Working Set Characteristics of Branch Execution, Proceedings of the 31st Annual ACM/IEEE International Symposium on Microarchitecture, pp. 49-58 (Dec. 1998)
✓	Larus and Schnarr: EEL: Machine-Independent Executable Editing, EEL: Machine-independent executable editing. In Proceedings of the ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI), 1995
✓	M. Lipasti and J. Shen. Exceeding the Data-Flow Limit Via Value Prediction, 29th International Symposium on Microarchitecture, pages 226-237, IEEE (Dec. 1996)

EXAMINER

DATE CONSIDERED

RECEIVED

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U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Papers, Etc.)

- | | | | |
|--|--|---|---|
| | | ✓ | Magnusson and Werner, Efficient Memory Simulation in SimICS, Proceedings of the 28th Annual Simulation Symposium, IEEE, pp. 62-73 (1995). |
| | | ✓ | K.N.P. Menezes, "Hardware-based profiling for program optimization," Ph.D. thesis, Department of Electrical and Computer Engineering, North Carolina State University, Raleigh, North Carolina (1997) |
| | | ✓ | Mueller, Rustagi and Baker: MiThOS - A Real-Time Micro-Kernel Threads Operating System, IEEE Real-Time Systems Symposium 1995: pp. 49-55 (1995) |
| | | ✓ | Park et al., Evaluation of Scheduling Techniques on a SPARC-Based VLIW Testbed, Proceedings of the 30th annual ACM/IEEE international symposium on Microarchitecture, pp. 104-113 (1997) |
| | | ✓ | Parkinson and Parameswaran, Profiling in the ASP Codesign Environment, Proceedings of the 8th International Symposium on System Synthesis, Cannes, France, p.128-133 (Sept. 1995) |
| | | ✓ | Rizvi et al., Execution-Driven Simulation of a Superscalar Processor, IEEE Proceedings of the 27th Annual Hawaii International Conference on System Sciences, pp. 185-194 (1994) |
| | | ✓ | Veen: Dataflow Machine Architecture, ACM Computing Surveys vol. 18 no. 4 pp. 365-96
(December 1986) |

1.18 no. 4 pp. 365-96
RECEIVED

JUL 20 2004

Technology Center 2100

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DATE CONSIDERED